

STATE OF VERMONT  
PUBLIC SERVICE BOARD

Docket No. 7037

Petition of EMDC, LLC for a Certificate of Public )  
Good authorizing the construction and operation )  
of a temporary wind measurement tower and )  
associated meteorological equipment at each of )  
the following three sites: (1) East Haven )  
Mountain located in the Town of East Haven, )  
Vermont; (2) an unnamed hilltop located near )  
Seneca Mountain in the Town of Ferdinand, )  
Vermont; (3) an unnamed hilltop located south of )  
the Town of Brighton, Vermont )

Order entered: 9/30/2005

**I. INTRODUCTION**

This Docket concerns a petition filed by EMDC, LLC, d/b/a East Haven Windfarm ("EMDC" or "Petitioner") on December 17, 2004, to install and operate three temporary wind measurement towers and associated equipment on sites in East Haven, Ferdinand, and Brighton, Vermont. In this Proposal for Decision, I recommend that the Board approve the wind measurement towers located in Ferdinand and Brighton with the conditions included in this proposal for decision. As explained below, I have previously found that the proposal to install and maintain a wind measurement tower in East Haven raised significant issue with respect to the substantive criteria of Section 248(b) and is, therefore, not ripe for a decision at this time.

**II. PROCEDURAL HISTORY**

Notice of the filing in this Docket was sent on January 7, 2005, to all entities specified in 30 V.S.A. § 248(a)(4)(c) and all other interested parties. The notice stated that any party wishing to submit comments as to whether the petition raised a significant issue with respect to the substantive criteria of 30 V.S.A. § 248 needed to file comments with the Board on or before

February 7, 2005. A similar notice of the filing was published in the Caledonia Record on January 10 and January 17, 2005.

The Board received several comments contending that the petition raised a significant issue with respect to the substantive criteria of Section 248. On March 3, 2005, I held a prehearing conference to discuss the process and schedule for proceeding in this Docket. At that time, I determined that a site visit was necessary and set the site visit for early summer to ensure that any interested person would be able to attend the site visit.

At the prehearing conference, several persons asserted that the Board did not have jurisdiction over wind measurement towers. A briefing schedule was set to address this issue. On July 29, 2005, I issued an Order determining that the Board did have jurisdiction over wind measurement towers.

A site visit to the Ferdinand and Brighton sites was held on June 1, 2005. A public hearing was held on the evening of June 1, 2005. A site visit to the East Haven site was conducted on June 16, 2005. Parties filed comments on whether the petition raises a significant issue, informed by the site visit. On July 29, 2005, I issued an order stating that the petition raises a significant issue with respect to the environmental criteria for all three proposed sites and with respect to economic benefit and orderly development for the East Haven site. On August 5, 2005, EMDC filed a letter stating that it had reached a resolution with the Vermont Agency of Natural Resources ("ANR") regarding environmental issues and consequently requested that the Board issue an order for the Brighton and Ferdinand sites. The August 5 letter included a stipulation between ANR and EMDC regarding proposed conditions to be included in a certificate of public good ("ANR Stipulation"). On August 10, 2005, ANR filed a letter contending that, if the conditions in EMDC's August 5 letter are incorporated into a final order and certificate of public good, ANR does not believe that the petition raises a significant issue with respect to environmental issues.

On August 19, 2005, the Clerk of the Board issued a memorandum asking parties to comment on EMDC's August 5 letter. No comments were received.

EMDC's August 5 letter proposed a schedule for addressing the issues at the East Haven site. As no negative comments were received regarding the proposed schedule, the Clerk issued

a memorandum on August 19, 2005, stating that the proposed schedule has been adopted with certain modifications. Hearings on the East Haven site will take place in October.

As there are no significant issues with respect to the Ferdinand and Brighton sites, I am recommending that the Board approve construction of the proposed towers at these two sites. An order addressing the proposed tower at the East Have site will be issued subsequent to the October hearings in this Docket.

### **III. FINDINGS**

1. The proposed towers will each be 197 feet in height and constructed of solid steel lattice sections. Attached to the towers would be meteorological sensors, including wind anemometers, wind direction vanes, and temperature sensors. Some of the sensors are proposed to have internal heating elements, thus requiring the use of a power source. Rubin pf. at 4–5.

2. At each site, EMDC proposes to install a tower and a 36-cubic foot enclosure at the base of the tower. The enclosure would contain a diesel generator, battery bank, and a 250-gallon double wall fuel tank. Rubin pf. at 5.

3. The proposed towers (in ten-foot sections) and associated equipment would be transported to each site by helicopter. Rubin pf. at 7.

4. The proposed towers would be erected by means of a gin-pole pulley system. Using this method, only a small area at the base of the tower and a 20-foot strip from the tower to each guy anchor needs to be disturbed. Installation is expected to take less than two days. Rubin pf. at 6.

5. Once the equipment is operational, routine maintenance would be required a few times per year. Access to the sites would be by ATV's or snowmobiles. Rubin pf. at 7–8.

6. The proposed towers would remain in place for five years. At the end of the five-year period, the towers and associated equipment will be removed from the site.<sup>1</sup> Rubin pf. at 8–9.

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1. EMDC has indicated that, if wind resources at the sites are such that EMDC would pursue construction of a wind generating facility at the site, it would petition the Board to allow the wind measurement towers to remain. However, it is unclear whether this would occur, and this proposal for decision only concerns two wind measurement towers that would be allowed to remain on-site for five years.

**Orderly Development of the Region**

[30 V.S.A. § 248(b)(1)]

7. The proposed towers will not unduly interfere with the orderly development of the region. The proposed project is located on private land, will not involve transmission or distribution lines, and will have limited visual impact. Rubin pf. at 2, 7, 14. Findings 29-31.

**Need for Present and Future Demand for Service**

[30 V.S.A. § 248(b)(2)]

8. The proposed towers will not be connected to the electrical grid. The proposed project could lead to a future petition for a wind generation facility. Rubin pf. at 4, 7.

**System Stability and Reliability**

[30 V.S.A. § 248(b)(3)]

9. The proposed towers will not be connected to the electric system and will not adversely affect system stability and reliability. Rubin pf. at 7.

**Economic Benefit to the State**

[30 V.S.A. § 248(b)(4)]

10. The proposed towers will be an investment in property. Rubin pf. at 2.

**Discussion**

The proposed towers will have a small economic benefit to the State, due to the increased property taxes resulting from the improvements and the temporary job creation in erecting the towers. Additionally, as the Board found in Docket 6884, it is appropriate in examining the economic benefit of a wind measurement tower to consider the potential economic benefit that could result if a wind generation facility is constructed.<sup>2</sup>

The known economic benefit from the proposed wind measurement towers is small, and while the potentially significant economic benefit (arising from the potential benefit of a possible

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2. Docket 6884, Order of 4/21/04 at 19.

wind generation facility) is speculative, there has been no showing that the proposed wind measurement towers will result in any economic harm to the state.

**Aesthetics, Historic Sites, Air and Water Purity,  
the Natural Environment and Public Health and Safety**

[30 V.S.A. § 248(b)(5)]

11. The modifications as proposed will not have an undue adverse effect on aesthetics, historic sites, air and water purity, the natural environment and public health and safety. This finding is supported by findings 12 through 38 below, which are the criteria specified in 10 V.S.A. §§ 1424(a)(d) and 6086(a)(1)-(8)(a) and (9)(k).

**Outstanding Resource Waters**

[10 V.S.A. § 1424(a)(d)]

12. The proposed tower sites are not located in the vicinity of an outstanding water resource, as designated by the Water Resources Board. Rubin pf. at 10.

**Water and Air Pollution**

[10 V.S.A. § 6086(a)(1)]

13. Emissions from the proposed tower sites will be limited to exhaust from a 7 kW generator. The generators are expected to consume an estimated 250 gallons of fuel annually. The generator does not require an air pollution control permit from the Agency of Natural Resources. Rubin pf. at 10.

14. Noise levels from the proposed towers will be less than 60 DbA at 100 feet. Noise levels at any property line will be indistinguishable from wind and other background noise. Rubin pf. at 10.

**Headwaters**

[10 V.S.A. § 6086(a)(1)(A)]

15. The proposed tower sites will be located at elevations greater than 1,500 feet and, therefore, are located within headwaters. Impacts to water quality will be minimal. Rubin pf. at 10; exh. MR-5.

**Waste Disposal**

[10 V.S.A. § 6086(a)(1)(B)]

16. Any construction-related waste as a result of the proposed towers will be hauled off-site for disposal. The proposed tower sites will not generate waste on an ongoing basis. Rubin pf. at 12.

**Water Conservation**

[10 V.S.A. § 6086(a)(1)(C)]

17. The proposed tower sites will not require the use of water. Rubin pf. at 13.

**Floodways, Streams, and Shorelines**

[10 V.S.A. §§ 6086(a)(1)(D)(E) &(F)]

18. The proposed towers are not located within a floodway or located near any streams or shorelines. Rubin pf. at 12.

**Wetlands**

[10 V.S.A. § 6086(a)(1)(G)]

19. The proposed towers will not adversely impact any wetlands. Rubin pf. at 12; exh. MR-5; ANR Stipulation.

20. Pursuant to the agreement between EMDC and ANR:

Prior to construction, EMDC shall work with a qualified consultant to develop detailed site maps which show the location of sensitive areas, such as wetlands and vernal pools, and the extent of clearing required to deliver and install MET Towers at the three sites. Using the resource maps as a basis for discussion, EMDC shall consult with ANR regarding the precise location of the towers, in

order to minimize the clearing of vegetation and the impact to environmental resources. Specifically:

...

b. EMDC shall map wetlands and vernal pools within a 300' radius of the proposed tower locations at Brighton and Ferdinand, and for 250' on either side of the proposed access route to the Ferdinand site from the point where the existing trail ends to the location of the Met Tower. (ANR understands that EMDC will use existing routes to access the sites at Brighton and East Haven.) Both towers and the access route to the Ferdinand site will be laid-out so as to provide a minimum 100' buffer from all sensitive areas identified on the site map.

c. The resource maps depicting sensitive areas and the final site plans shall be submitted to both ANR and the Public Service Board prior to commencement of construction.

ANR Stipulation.

Discussion

The ANR Stipulation provides a methodology for ensuring that there will not be an undue adverse impact on wetlands. However, there is a procedural flaw in the ANR Stipulation. The Stipulation requires that the resource maps be filed only with ANR and the Board. All parties to this Docket have a right to review the resource maps and I recommend that the Board require EMDC to file the maps with all parties.

**Sufficiency of Water and Burden on Existing Water Supply**

[10 V.S.A. §§ 6086(a)(2)&(3)]

21. The proposed towers will not have any impact on existing water supplies. Rubin pf. at 13.

**Soil Erosion**

[10 V.S.A. § 6086(a)(4)]

22. The proposed towers will not cause unreasonable soil erosion or reduction in the capacity of the land to hold water so that a dangerous or unhealthy condition may result. This finding is supported by findings 23 through 25, below.

23. A small quantity of soil will be disturbed in construction of the proposed towers and associated equipment. The disturbance is limited to the tower bases and guy anchors. Rubin pf. at 9–10.

24. Any removed soils will be carefully packed in place to minimize the potential for erosion. Rubin pf. at 9–10.

25. The agreement between EMDC and ANR provides:

Motorized vehicles (ATVs or snowmobiles) may be used to access the Brighton and Ferdinand sites during winter months (December — March), and during other times of the year when the ground is frozen or sufficiently dry to avoid any undue soil erosion. Specifically, EMDC shall not use motorized vehicles to access the site within 48 hours of a rainfall event that exceeds 0.25", except when unforeseeable events require immediate access.

ANR Stipulation.

**Transportation Systems**

[10 V.S.A. § 6086(a)(5)]

26. The proposed towers will not have an adverse impact with respect to highways, waterways, railways, airports and airways. Rubin pf. at 13.

27. FAA regulations do not require lighting of structures less than 200 feet tall. The proposed towers do not exceed this height. Rubin pf. at 13.

**Educational and Municipal Services**

[10 V.S.A. § 6086(a)(6) & (7)]

28. No additional educational or municipal services will be required as a result of the proposed modifications. Rubin pf. at 13–14.

**Aesthetics, Historic Sites  
and Rare and Irreplaceable Natural Areas**

[10 V.S.A. § 6086(a)(8)]

29. The proposed towers will be 18 inches wide per side and of lattice construction. Rubin pf. at 14.

30. EMDC is proposing that the towers be removed five years after issuance of a certificate of public good. Rubin pf. at 8–9.

31. The width and coloring of the proposed towers (weatherized galvanized tubing and gray guy wires) makes visibility of the towers limited at a distance of more than one or two miles. Rubin pf. at 14–15.

32. The proposed towers will not adversely impact rare or irreplaceable natural areas. Rubin pf. at 15–16; exh. MR-5.

**Necessary Wildlife Habitat and Endangered Species**

[10 V.S.A. § 6086(a)(8)(A)]

33. The proposed towers will not significantly imperil necessary wildlife habitat or any endangered species. Rubin pf. at 16; exh. MR-5.

34. Pursuant to the agreement between EMDC and ANR:

Mapped Bicknell's Thrush habitat is present on both East Haven and Seneca mountains. As such, clearing must be minimized to the maximum extent practicable and occur either before May 15 or after August 1.

ANR Stipulation.

35. Under the agreement between EMDC and ANR:

EMDC shall conduct biweekly bird carcass surveys at each of the Met Tower sites for the life of the project. A plan for conducting the surveys shall be provided to the Agency for review and approval. The surveys shall be conducted by qualified scientists with experience in carcass surveys and shall employ scavenger rate and searcher efficiency tests. Carcass surveys shall begin on September 1 and extend through October 20. EMDC will modify the terms of its carcass survey to include and increase to weekly monitoring if two or more carcasses are found during any biweekly survey period. Within 24 hours EMDC shall notify the Vermont Fish & Wildlife Department if any carcasses are found. This shall be accomplished by an agreed upon email or telephone number. Results from the surveys shall be presented in a written report to ANR within two months of survey completion. The raw carcass survey data shall be provided to ANR along with a written report detailing survey results. ANR will review the annual report, and consult with EMDC, in order to determine whether changes to future surveys are appropriate (e.g., increased or decreased frequency of surveys, or discontinuing the surveys entirely).

ANR Stipulation.

**Development Affecting Public Investments**

[10 V.S.A. § 6086(a)(9)(K)]

36. The proposed towers are adjacent to Essex Timber Company lands, which are subject to easements held by the State of Vermont guaranteeing public access for recreation. Rubin pf. at 16.

37. The proposed towers must be as high as proposed in order to adequately measure the wind resource. Rubin pf. at 16.

38. Any impact to the Essex Timber Company lands is limited to aesthetic impacts. Rubin pf. at 16.

**Discussion**

As discussed above, the proposed towers will have limited aesthetic impact. Consequently, the proposed towers will not unnecessarily or unreasonably endanger the public interest in adjacent lands.

**Least-Cost Integrated Resource Plan**

[30 V.S.A. § 248(b)(6)]

EMDC is not required to have a least-cost integrated plan pursuant to 30 V.S.A. § 218c.

**Compliance with Electric Energy Plan**

[30 V.S.A. § 248(b)(7)]

39. The proposed towers are consistent with the Vermont 20-Year Electric Plan, pursuant to 30 V.S.A. § 202(f). Letter of September 7, 2005, from Riley Allen, Director of Regulated Planning, to Andrew Raubvogel.

**Outstanding Resource Waters**

[30 V.S.A. § 248(b)(8)]

40. The proposed towers are not located on any segment of water that has been designated outstanding resource waters by the Water Resources Board. Rubin pf. at 10.



**V. ORDER**

IT IS HEREBY ORDERED, ADJUDGED AND DECREED by the Public Service Board of the State of Vermont that the erection and maintenance of wind measurement towers, and associated equipment, at sites in Ferdinand and Brighton, for a period of time not to exceed five years from the date of this Order, in accordance with the evidence and plans presented in this proceeding, will promote the general good of the State of Vermont in accordance with 30 V.S.A. Section 248, and a certificate of public good shall be issued in the matter with the following conditions:

1. EMDC shall remove the two wind measurement towers and associated equipment within five years of the date of the certificate of public good.
2. EMDC shall conduct biweekly bird carcass surveys at the tower sites for the life of the project. The surveys shall be conducted according to the agreement between EMDC and ANR.
3. EMDC shall coordinate with ANR and the Department to determine what studies must be conducted prior to the filing of a petition for approval to construct a wind generating project at one or more of the wind measurement tower sites. Any such petition shall include a statement by EMDC that it has worked in good faith with ANR and the Department in an effort to address their need for information prior to Section 248 review of the wind generation project(s).
4. Due to the presence of Bicknell's Thrush habitat on Seneca mountain, clearing must be minimized to the maximum extent practicable and occur either before May 15 or after August 1.
5. Prior to construction, EMDC shall work with a qualified consultant to develop detailed site maps which show the location of sensitive areas, such as wetlands and vernal pools, and the extent of clearing required to deliver and install wind measurement towers at the three sites. Using the resource maps as a basis for discussion, EMDC shall consult with ANR regarding the precise location of the towers, in order to minimize the clearing of vegetation and the impact to environmental resources. Specifically:
  - a. EMDC shall map wetlands and vernal pools within a 300' radius of the proposed tower locations at Brighton and Ferdinand, and for 250' on either side of the proposed access route to the Ferdinand site from the point where the existing trail ends to the location of the wind

measurement tower. Both towers and the access route to the Ferdinand site will be laid-out so as to provide a minimum 100' buffer from all sensitive areas identified on the site map.

b. The resource maps depicting sensitive areas and the final site plans shall be filed with the Board and all parties prior to commencement of construction.

6. Motorized vehicles (ATVs or snowmobiles) may be used to access the Brighton and Ferdinand sites during winter months (December — March), and during other times of the year when the ground is frozen or sufficiently dry to avoid any undue soil erosion. Specifically, EMDC shall not use motorized vehicles to access the site within 48 hours of a rainfall event that exceeds 0.25", except when unforeseeable events require immediate access.

7. The ANR Stipulation is approved.

8. This Docket shall remain open for review of the proposed East Haven wind measurement tower.

Dated at Montpelier, Vermont this 30<sup>th</sup> day of September, 2005.

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	)	PUBLIC SERVICE
	)	
s/David C. Coen	)	BOARD
	)	
	)	OF VERMONT
s/John D. Burke	)	

OFFICE OF THE CLERK

FILED: September 30, 2005

ATTEST: s/Judith C. Whitney  
Acting Clerk of the Board

*Notice to Readers: This decision is subject to revision of technical errors. Readers are requested to notify the Clerk of the Board (by e-mail, telephone, or in writing) of any apparent errors, in order that any necessary corrections may be made. (E-mail address: Clerk@psb.state.vt.us)*

*Appeal of this decision to the Supreme Court of Vermont must be filed with the Clerk of the Board within thirty days. Appeal will not stay the effect of this Order, absent further Order by this Board or appropriate action by the Supreme Court of Vermont. Motions for reconsideration or stay, if any, must be filed with the Clerk of the Board within ten days of the date of this decision and order.*